

## **REMARKS AND ARGUMENTS:**

Applicants have fully considered the Office Action dated October 19, 2006. In view of the above amendments and following remarks, Applicants respectfully request reconsideration of the application, withdrawal of the rejections, and issuance of a Notice of Allowance.

### **Amendments:**

Applicants respectfully submit the amendments to the claims do not raise new matter, as support for the amendments may be found in the application as originally filed. Similarly, the amendments do not raise new issues requiring additional searching, because the subject matter of the amendments may be found in the claims as originally filed and previously searched and in the previously submitted arguments. Accordingly, each of the amendments has already been the subject of a substantive search. Substantive examination and an Advisory Action are, therefore, respectfully requested.

Please cancel claims 21-58 without prejudice or disclaimer. Applicants reserve the right to reassert any combination of Claims 21-58 during the prosecution of this application or any continuing applications that may be filed.

### **Election/Restriction comments:**

The Office's comments regarding election and inventorship are noted.

### **Claim interpretation:**

Applicants respectfully disagree with the Examiner's claim interpretation. According to the Examiner, paragraph [0019] of the instant specification defines the term arylamine as "any aromatic amine that is capable of reaction with an aldehyde to form a polymer." According to the Examiner, melamine compounds read on this definition since they are aromatic and capable of reaction with formaldehyde to form a polymer.

Applicants do not dispute the inclusion of this recitation within the specification. The claims, however, recite a group of arylamines including "aniline, alkylanilines, phenylenediamines, aminophenols, methylenedianiline, homologues of methylenedianiline, and mixtures thereof." Those having ordinary skill in the art would not recognize melamine

compounds as being members of this group. Accordingly, melamine compounds do not read on the polyarylamine polymers of the instant claims.

Rejection of claims 1-5 and 8-20 under 35 USC §112, second paragraph, as being indefinite.

It is respectfully requested that the rejection of claims 1 – 20 under 35 USC §112, second paragraph, as being indefinite be reconsidered for the reasons given below and be withdrawn. The Office argued that it is unclear whether the “flocculant and/or coagulant” is intended to modify or define the function of the polyarylamine polymer or is a further ingredient. The Office points to claim 20, where melamine formaldehyde is claimed as a flocculant.

The “flocculant and/or coagulant” of claim 1 is an element of the composition that is in addition to the polyarylamine. Claim 1 clearly recites a polyarylamine selected from a list of suitable polyarylamines and an other flocculant and/or coagulant. Support for this amendment may be found in paragraph [0055] of the application as originally filed. Similarly, this argument was discussed by the applicant, without amending the claim, and considered by the Examiner in the previously submitted response. The plain language of the claim, therefore, clearly states that the polyarylamine and the flocculant and/or coagulant are distinct. Accordingly, Applicants submit it is clear that the flocculant and/or coagulant is a further ingredient, because the claim states that flocculant and/or coagulant is “other” than the polyarylamine. Applicant agrees with the Examiner's statement that Claim 20 recites melamine formaldehyde as a flocculant. Claim 1, however, does not include melamine formaldehyde as a suitable polyarylamine component.

In claims 17, 18 and 19, the Office has argued that the ratio of the amine modifier:arylamine is unclear when the amine modifier and the arylamine are the same compound. Claim 10 stands as amended to recite, “...an amine modifier that is different from the arylamine.” Accordingly, the ratios of Claims 17, 18, and 19 are clear because the amine modifier and the arylamine cannot overlap according to the claims.

In claim 5, the Office has argued that it is unclear how a hexamethylenetetramine is an aldehyde releasing agent.

As to the question by the Office as to whether hexamethylenetetramine is an aldehyde-releasing agent, the Applicant wishes to point out the statement, found in McDonnell *et al.*, Clin Microbiol Rev., 12(1):147 – 179 (1999), to the effect that:

“ Formaldehyde-releasing agents. Several formaldehyde-releasing agents have been used in the treatment of peritonitis (226, 273). They include noxythiolin (oxymethylenethiourea), tauroline (a condensate of two molecules of the aminosulphonic acid taurine with three molecules of formaldehyde), hexamine (hexamethylenetetramine, methenamine), the resins melamine and urea formaldehydes, and imidazolone derivatives such as dantoin.” (underlining added for emphasis)

The citations 226 and 273 are given as: (226) Hugo, W. B., and A. D. Russell. Types of antimicrobial agents. In A. D. Russell, W. B. Hugo, and G. A. J. Ayliffe (ed.), Principles and practice of disinfection, preservation and sterilization, 3rd ed., in press. Blackwell Science, Oxford, England, and (273) Lambert P A, Hammond S M. Potassium fluxes. First indications of membrane damage in microorganisms. Biochem Biophys Res Commun. 1973;54:796–799. Other references that show the release of formaldehyde from the reaction of hexamethylenetetramine and an acid are found in Synthesis, p. 161 (1979), and J. Organic Chemistry, 44:1678 (1979). Copies of the relevant references are included with the Information Disclosure Statement filed herewith.

It is maintained, therefore, that hexamethylenetetramine was known in the art as an aldehyde-releasing agent at the time of the present invention.

Applicants respectfully request, in view of the above amendments and remarks, withdrawal of the 35 U.S.C. § 112, second paragraph rejections.

Rejection of claims 1 – 5, 8 – 12, and 14 – 20 under 35 USC §102(b) over U.S. Patent No. 4,422,944 to Selvarajan *et al.*

It is respectfully requested that the rejection of claims 1 – 12 and 14 – 20 under 35 USC §102(b) over U.S. Patent No. 4,422,944 to Selvarajan *et al.* be reconsidered for the reasons discussed below and be withdrawn.

To be anticipatory, a reference must disclose each element of the claimed invention. Present Claim 1 recites a polyarylamine polymer, wherein the arylamine is selected from the group consisting of aniline, alkylanilines, phenylenediamines, aminophenols, methylenedianiline, homologues of methylenedianiline, and mixtures thereof. Additionally,

Claim 1 recites an other flocculant and/or coagulant. Accordingly, Claim 1 requires both a polyarylamine and a distinct flocculant and/or coagulant.

With respect, the Applicant maintains that the polymer described by Selvarajan *et al.* cannot fulfill both roles (that of flocculant and/or coagulant and polyarylamine polymers) because Claim 1 requires that the flocculant and/or coagulant is different than and in addition to the polyarylamine. The flocculant and/or coagulant must be different than the polyarylamine polymers. The Applicant maintains that the polymer described by Selvarajan *et al.* cannot fulfill the role of both the flocculant and/or coagulant as well as the polyarylamine polymer according to the terms of the present claims. Consequently, the publication fails to teach all elements of the amended claims and that the rejection should be withdrawn.

Rejection of claims 1 – 5 and 8 – 20 under 35 USC §103(a) as obvious over Selvarajan *et al.*, in view of U.S. Patent No. 5,240,509 to Rey *et al.*

It is respectfully requested that the rejection of claims 1 – 5 and 8 – 20 under 35 USC §103(a) as obvious over Selvarajan *et al.*, in view of U.S. Patent No. 5,240,509 to Rey *et al.* be reconsidered for the reasons discussed below and withdrawn.

According to the Examiner, to the extent the Selvarajan polymers differ from the claims in the combination of the Selvarajan polymers with an additional flocculant and/or coagulant, the combination would have been obvious to one having ordinary skill in the art due to Rey's disclosure of treating water with compositions comprising a combination of melamine-formaldehyde and an inorganic flocculant or nonionic flocculant. Applicants respectfully traverse the rejection.

Amended Claim 1 recites the arylamine reactant as being selected from a list of specific arylamines formerly described in claim 7, now cancelled. Because neither Selvarajan nor Rey *et al.* teach or suggest the use of any arylamine other than melamine, which is not included in the useful arylamines of claim 1, they cannot teach the invention as claimed. Moreover, because the structure of melamine (a triamino triazine) is significantly different from the anilines, phenylenediamines, and amino phenols required in the present invention, one of ordinary skill in the art would have no reason to expect that the substitution of one of those compounds for the melamine required in Rey *et al.* would result in a successful treating agent for contaminated spray booth waters. Without a suggestion to make this modification of the

Rey *et al.* melamine polymer, the Rey *et al.* reference cannot be argued to make the present claims obvious.

Additionally, neither Selvarajan nor Rey teach the use of a flocculant and/or coagulant distinct from the polyarylamine polymer including arylamines selected from the list of Claim 1. There is no teaching, suggestion, or motivation provided by either reference that would lead one having ordinary skill in the art to combine the cited references and then add additional arylamine polymers to detackify paint in an aqueous system. Absent such motivation, the claims cannot be said to be obvious in view of the cited combination.

Accordingly, it is respectfully requested that the present ground of rejection be reconsidered and be withdrawn.

Request for reconsideration:

Applicants respectfully submit the application is in condition for allowance in view of the above amendments and remarks. If one or all of the claims are deemed to not be allowable, the Examiner is invited to call the undersigned attorney at the number given below for resolution of any remaining issues.

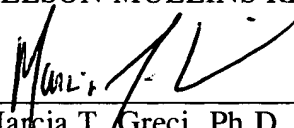
It is believed that no fees are due in conjunction with the filing of this response. If, however, it is determined that fees are due, authorization is hereby given to deduct those fees from Deposit Account No. 50-2548.

Respectfully requested,

NELSON MULLINS RILEY & SCARBOROUGH, LLP

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Date

  
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